Oral Endoscopy

OTU-11 MORTALITY AND MORBIDITY ASSOCIATED WITH PEG INSERTION IN ENGLAND BETWEEN 2007 AND 2019

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10.1136/gutjnl-2021-BSG.1

Introduction Percutaneous endoscopic gastrostomy (PEG) is utilised in a variety of medical conditions to provide nutrition and administer medications directly into the stomach when the oral route is unavailable. We have examined the 30-day mortality and 7-day complications associated with PEG insertion at a national level.

Methodology All patients who had a PEG inserted in England, from 2007 to 2019, were identified from Hospital Episode Statistics. The indications for PEG were identified using International Classification of Diseases-10th revision codes. 30-day mortality and complications within 7 days were examined. A multivariable logistic regression model was utilised to examine factors associated with 30-day mortality.

Results 87,682 patients had a PEG insertion over the study period: 58.2% male, median age 69 (IQR 57- 79) years. Stroke was the predominant indication (41.2%) followed by other neurological conditions (30.6%) and head and neck cancers (23.8%). Overall, 30-day mortality was 8.9% with a significant reduction in mortality over the study period, from 13.2% in 2007 to 5.3% in 2019, $p < 0.001$. Factors associated with 30-day mortality included increased age (odds ratio for ≥ 82 years quintile 4.44 (95% CI 4.01-4.92)), PEG inserted during an emergency admission (2.10 (1.97-2.25)), increasing comorbidity (charlson comorbidity score ≥ 5 , 1.67 (1.53-1.82)), dementia (1.46 (1.26-1.71)) and oesophageal cancer (1.74 (1.50-2.03)). Female sex (0.81 (0.77-0.85)), the least deprived quintile (0.88 (0.81-0.95)) and PEG inserted in recent years (PEG inserted in 2019, 0.44 (0.39-0.51)) were negatively associated with mortality. 7-day post PEG insertion

complications included pneumonia (14.2%), perforation (1.7%), bleeding (1.6%), abdominal wall infection (1.2%) and related to sedation (0.1%).

Conclusion 30-day mortality following PEG insertion in England has fallen significantly over the last decade. This is likely due to better patient selection for PEG insertion with multi-disciplinary nutrition team input. The most common complication following PEG insertion is pneumonia, which is likely to be reflective of the patient cohort that requires PEG and highlights need for preventative measures to reduce the risk of pneumonia.

OTU-12 VALIDATION OF EDINBURGH DYSPHAGIA SCORE IN A NATIONAL EVALUATION OF UPPER GI CANCER 2WW PATHWAY

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10.1136/gutjnl-2021-BSG.2

Introduction British Society of Gastroenterology has recommended to use the Edinburgh Dysphagia Score (EDS) (with a cut off ≥ 3.5) to risk stratify dysphagia referrals during the endoscopy COVID recovery phase. We have validated EDS performance in a national prospective evaluation of the UGI cancer two week wait pathway and developed a modified scoring system with improved diagnostic accuracy.

Methods Data on patients referred with dysphagia on the 2WW pathway between May 2020 and February 2021 to 19 centres across the UK were collected at telephone triage and recorded on a standardised data collection tool. Sensitivity and Negative predictive values were calculated for EDS ≥ 3.5 . Forward stepwise logistic regression model identified the factors associated with UGI cancer and their regression coefficients were used to develop a modified scoring system, called Cancer Dysphagia Score (CDS). Diagnostic accuracy was examined by comparing area under the receiver operating curves (AUROC).

Abstract OTU-12 Figure 1 Cancer Dysphagia Score

Results 1496 patients were studied: median age 62 (IQR 51-73), 58% female. Median EDS score was 4 (IQR 2.5-6); with 67% having an EDS ≥ 3.5 . 64% were triaged to 2WW endoscopy; 18% to urgent (but not 2WW) endoscopy; 2.8% to urgent CT scan; 5.5% to routine OGD; and 4.4% to barium swallow. After excluding patients who declined investigation, results were available for 96%.

91 UGI cancers were diagnosed (prevalence 7.1%); with 3 (3%) UGI cancers diagnosed in patients with EDS <3.5 (one with EDS 3, two with EDS 1.5). EDS ≥ 3.5 had sensitivity of 96.7% and negative predictive value of 99% for UGI cancer. The factors associated with UGI cancer and hence selected to develop CDS included: age odds ratio 1.05 (95% CI 1.03-1.06); male 3.95 (2.36-6.58); progressive dysphagia 2.30 (1.39-3.79); unintentional weight loss 3.28 (2.02-5.31); acid reflux symptoms 0.47 (0.25-0.88) and dysphagia localised to the neck (0.26 (0.12-0.57)). Dysphagia duration less than 6 months was not statistically significant (1.02 (0.45-2.22)). AUROC was 0.83 for CDS as compared to 0.81 for EDS.

Cancer dysphagia score and its receiver operating curve in comparison to Edinburgh dysphagia score is presented in figure 1.

Conclusion A national prospective cohort confirms that EDS has high sensitivity and negative predictive value for UGI cancer, however, a modified cancer dysphagia score offers higher diagnostic accuracy. Our results suggest that CDS should be incorporated in the UGI cancer 2WW pathway for risk stratification of patients with dysphagia and further studies in primary care are needed.

OTU-13 EUS CHOLEDOCHODUODENOSTOMY IN MALIGNANT DISTAL BILIARY OBSTRUCTION: MULTI-CENTRE COLLABORATION FROM THE UK AND IRELAND

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10.1136/gutjnl-2021-BSG.3

Introduction Endoscopic ultrasound guided choledochoduodenostomy (EUS-CDD) with electrocautery enhanced lumen apposing metal stents (EC-LAMS) has emerged as a viable option in the management of patients with malignant distal biliary obstruction (MDBO). We conducted a multi-centre collaboration from the UK and Ireland with an aim to analyse the pooled efficacy, safety and long term outcomes of EUS-CDD for treatment of MDBO.

Methods Consecutive patients with MDBO who underwent EUS-CDD with EC-LAMS at 8 tertiary hepatopancreatobiliary institutions between September 2016 and September 2020 were retrospectively analysed. Recorded variables included patient demographics, procedural characteristics and follow-up data.

Abstract OTU-13 Table 1

Severity of adverse event	Adverse event description
Mild (n=6)	<ul style="list-style-type: none"> Cholangitis with no stent occlusion treated with antibiotics (n=5) Pneumoperitoneum post stent deployment; bridged with metal stent with no post-procedural clinical consequence (n=1)
Moderate (n=11)	<ul style="list-style-type: none"> Cholangitis and stent occlusion requiring re-intervention (n=6) Stent migration requiring re-intervention (n=2) Stent occlusion without cholangitis requiring re-intervention (n=1) Bile leak due to malposition of stent requiring re-intervention (n=1) Bile leak due to maldeployment of stent; managed conservatively (n=1)
Severe (n=2)	<ul style="list-style-type: none"> Duodenal perforation requiring laparotomy (n=2)

Results 112 patients (59 male) were identified. The mean age was 72 years old (range 46 - 94 years old). Pancreatic adenocarcinoma was the commonest underlying malignancy in 63.4% (n=71). The indications for EUS-CDD were: an inaccessible papilla (n=49), tumour infiltration of papilla (n=29) and unsuccessful biliary cannulation/stricture impassable with guidewire (n=34). Technical success was achieved in 91.1% (n=102) of patients. Additional stenting with plastic pigtailed through the EC-LAMS was performed in 26 patients at the discretion of the endoscopist to augment biliary drainage. Data for clinical success (reduction of serum bilirubin to $\leq 50\%$ of original value at day 7) was available for 90 patients and was achieved in 94.4% of these (n=84). The adverse event rate was 16.9% (n=19) and further details are summarised in the table. The biliary re-intervention rate was 8.1% (n=8) in 99 patients with successful EUS-CDD (3 lost to follow-up), over a median follow-up of 70 days (range 3 - 761 days). Eight patients underwent attempted surgical resection of their primary tumour and in those who did, resection and formation of hepaticojejunostomy was successful.

Conclusion We present the first collaborative data from the UK and Ireland demonstrating EUS-CDD in MDBO to be efficacious with a reasonable safety profile.

OTU-14 COLONOSCOPY POLYP DETECTION IS LOWER AT WEEKENDS: A NATIONAL ENDOSCOPY DATABASE ANALYSIS

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10.1136/gutjnl-2021-BSG.4

Introduction Due to the mismatch between endoscopy capacity and demand, many centres use in-reach services at weekends. We used data from the National Endoscopy Database to investigate whether (1) patient characteristics on weekdays and weekends differ and (2) weekend procedures are associated with lower polyp detection, after accounting for patient characteristics.

Methods We conducted a retrospective cross-sectional study using data on independent colonoscopies conducted 01/01-04/04/2019. Procedures had to be non-emergencies, undertaken on patients aged ≥ 18 years, involve complete examinations